

Assessment Feedback Form

Topic: Work and Energy

Nature of science: Many phenomena can be fundamentally understood through the application of conservation of energy. Over time, scientists have utilized this theory both to explain natural phenomena and, more importantly, to predict the outcome of previously unknown interactions. The concept of energy has evolved as a result of the recognition of the relationship between mass and energy.

Demonstration of Mastery	
I can calculate the work done by a constant force.	
I can graphically determine the work done by a variable force.	
I can relate the force applied to a system to the work done by/on a system to changes in energy.	
I can discuss the conservation of mechanical energy within energy transformations.	
I can mathematically apply conservation of mechanical energy by analyzing energy transformations.	
I can mathematically analyze scenarios in which “energy is lost to friction.”	
I can distinguish between conservative and non-conservative forces.	

Demonstration of Skills	
I can evaluate a problem and determine the best approach to solving the problem.	
I follow the problem solving guidelines.	
I express my final answer with units.	
I can evaluate the significance of my final answers (magnitude, sign)	
I support conceptual explanations with appropriate physics.	

